

## CVE-400-2 Engineering a Citrix Virtualization Solution

The CVE-400-2 Engineering a Citrix<sup>®</sup> Virtualization Solution course teaches Citrix engineers how to plan for and perform the tasks necessary to successfully integrate the component technologies that make up a Citrix virtualization solution in a Windows Server 2008 environment. Upon course completion, students will be able to interpret environmental assessment documentation, plan for a virtualization solution project and integrate key Citrix virtualization technologies, including XenApp<sup>™</sup>, XenServer<sup>™</sup>, and XenDesktop<sup>™</sup>, to create a holistic, end-to-end virtualization solution that will address the most pressing business issues of the day. The extensive, highly hands-on curriculum includes exercises that allow students to demonstrate the advanced technical knowledge gained from the course.

### Audience

This course is intended for IT professionals, such as Server, Network and Systems Engineers. Systems Integrators, Systems Administrators and Application Engineers are also appropriate candidates for this course.

### Included Products

The exercises for this course include hands-on integration of the following Citrix core and component products:

- Citrix XenApp 5.0 on Windows Server 2008
- Citrix Essentials<sup>™</sup> for XenServer 5.5
- Citrix XenDesktop 3.1
- Citrix Provisioning Services<sup>™</sup> 5.1
- Citrix EdgeSight<sup>™</sup> for Load Testing 3.0
- Citrix EdgeSight for Endpoints 5.0
- Citrix EdgeSight for XenApp<sup>™</sup> 5.0
- Citrix Workflow Studio<sup>™</sup> 2.0
- Citrix Profile management 2.0
- Citrix Receiver 1.0
- Citrix Dazzle<sup>™</sup> 1.0
- Citrix NetScaler<sup>®</sup> VPX 9.1

### Preparatory Recommendations

The following preparatory recommendations describe the experience and knowledge students should possess to ensure successful completion of this course.

- Experience using the following Citrix products:
  - Citrix XenApp 4.5 or higher
  - Citrix XenServer 5.0 or higher
  - Citrix XenDesktop 2.0 or higher
  - Citrix Provisioning Services 5.0 or higher
  - Citrix EdgeSight for Load Testing 3.0
  - Citrix EdgeSight for Endpoints 5.0
  - Citrix EdgeSight for XenApp 5.0
- Experience using Windows Server 2008, including:
  - Active Directory
  - Terminal Services
  - DHCP
  - DNS
  - Performance Monitoring
  - Troubleshooting
  - Base OS, including server roles
  - Group Policy Objects
- Experience using Microsoft SQL Server

- Completion of the following courses or demonstrate equivalent knowledge:
  - CXA-201-1 - Implementing Citrix XenApp 5.0 for Windows Server 2008
  - CXS-200-1 - Implementing Citrix XenServer Enterprise Edition 5.0
  - CXD-200-1 - Implementing Citrix XenDesktop 3
  - CXA-300-1 - Advanced Administration for Citrix XenApp 5.0 for Windows Server 2008

## Key Skills

Upon completion of this course, learners are able to:

- Explain the benefits and considerations for VM storage, including local host disk, iSCSI SAN, Fibre Channel SAN and NFS SAN.
- Explain how network considerations, including network topology, utilization requirements and the number of interfaces, affect a virtualization host server.
- Configure network connectivity and storage for the XenServer host.
- Configure a resource pool for optimal performance.
- Identify information in the project documentation that is required for project decision-making purposes.
- Create an order of execution plan that reflects the tasks required to implement the virtual solution and organizational goals.
- Identify the available Provisioning Services server optimizations.
- Install, configure and test a Provisioning Services configuration.
- Configure XenApp for optimal performance in a virtualized environment.
- Prepare, install and configure a provisioned XenApp server within a Citrix virtualization solution.
- Identify the components that comprise a XenDesktop virtual solution.
- Provision a XenDesktop pool in a virtual solution.
- Identify the uses and differences of EdgeSight for Load Testing, EdgeSight for Endpoints and EdgeSight for XenApp.
- Configure an EdgeSight alert to trigger a Workflow Studio workflow.
- Identify common workflows that can be automated using Workflow Studio.
- Perform a XenApp server upgrade using the vDisk update process.

## Instructional Method

This course is offered as an instructor-led or self-paced online training course and can include virtual labs or classroom discussion, as well as demonstrations and the practical application of concepts through hands-on exercises.

## Course Length

30 hours or 5 days

## Certification Preparation

CVE-400-2 prepares learners for Exam A15 Engineering a Citrix Virtualization Solution, one of the requirements for the CCEE for Virtualization.

## Registration

For more information and to register for this course, please go to [www.citrixeducation.com](http://www.citrixeducation.com).

## Topic Outline

Provided is the outline for CVE-400-2:

- Host Server Concepts
  - Key Virtualization Terms
  - Hardware Configuration
  - Memory Considerations
  - CPU Considerations
  - Network Considerations
  - Virtual Machine Management
  - Virtual Machine Migration
  - Identifying Media Storage Considerations
  - Differentiating Between Local Storage and SAN
  - Determining RAM Scalability
  - Determining CPU Scalability
  - Determining Network Interface Strategies
  - Determining HA Priority Levels
  - Identifying Storage Overcommitment Risks
- XenServer Integration
  - ISO Storage
  - Pre-Installation Considerations
  - Troubleshooting
  - Configuring XenServer Networking
  - Configuring XenServer Storage
  - Creating a Resource Pool
  - Testing High Availability
- Project Planning and Implementation Strategies
  - Project Roles
  - Project Documentation
  - Implementation Planning
  - Implementation Case Studies
  - Identifying Gaps in Documentation
  - Interpreting Project Documentation and Identifying Goals
- Provisioning Services Integration
  - Network Support of Streaming
  - Provisioning Services Optimizations
  - Streaming Other Workloads
  - Troubleshooting
  - Installing and Configuring Provisioning Services Server
  - Creating and Configuring the vDisk
  - Testing the Configuration
  - Adding Additional Server to Farm
  - Configuring Load Balancing and HA for Provisioning Services
- XenApp Integration
  - Application Delivery
  - XenApp Configurations
  - Provisioning Services with XenApp
  - XenApp Migration
  - Troubleshooting
  - Installing XenApp
  - Provisioning XenApp Servers
  - Configuring XenApp Servers
- XenDesktop Integration
  - Virtual Desktop Components
  - Desktop Groups
  - XenDesktop Management
  - NetScaler VPX
  - Troubleshooting
  - Installing the Desktop Delivery Controller
  - Installing the Additional Desktop Delivery Controllers

- Configuring the XenDesktop Farm
- Creating a Virtual Desktop VM
- Provisioning the XenDesktop Pool
- Configuring the Desktop Group
- Testing the Desktop Pool
- Configuring NetScaler VPX
- Virtualized Environment Monitoring
  - EdgeSight
  - EdgeSight for Load Testing
  - Installing EdgeSight for Load Testing
  - Installing EdgeSight Server
  - Configuring the EdgeSight Server
  - Installing EdgeSight Agent Database Server
  - Installing EdgeSight Agent on XenDesktop Desktops
  - Configuring EdgeSight
  - Testing the Monitoring Environment
- Virtualized Environment Maintenance
  - Workflow Studio Overview
  - Workflow Automation
  - Sample Maintenance Workflows
  - XenApp and XenDesktop Server Backup
  - Configuring a XenServer Metadata Backup Schedule
  - Performing a XenServer Hotfix Update
  - Performing a XenApp Application Update
  - Upgrading a Provisioned XenApp Server
  - Configuring Lab Manager
  - Configuring Citrix Receiver for Citrix Dazzle